

PRODUCT DATA SHEET

Sika® Injection-458

EPOXY RESIN BASED, RIGID STRUCTURAL INJECTION MATERIAL WITH AN EXTENDED POT LIFE



DESCRIPTION

Sika® Injection-458 is a rigid, solvent free, low viscosity, high strength, structural epoxy resin based injection material with an extended / long pot life.

USES

Sika® Injection-458 may only be used by experienced professionals.
Sika® Injection-458 is suitable for use in both dry and damp substrates such as in and around concrete, steel, brick and natural stone, particularly in civil engineering structures i.e. for bridges, tunnels and shafts etc. It is also suitable for injection repairs to bond and fill voids between concrete blinding, floor slabs and screeds.

CHARACTERISTICS / ADVANTAGES

- Low viscosity
- Excellent adhesion, including at its edge / perimeter
- Very good bond to both dry and damp structures (i.e. concrete, masonry and natural stone etc.)
- Long / extended pot life even when used at higher temperatures
- Hardens to create a barrier against water infiltration and corrosive agents
- Due to its low viscosity it can penetrate into cracks down to >0.2 mm in width
- Injection by simple 1-component pumps
- Solvent-free

APPROVALS / CERTIFICATES

CE-marking and Declaration of Performance as Concrete injection for force transmitting filling of cracks, voids and interstices (F) according to EN 1504-5:2004, based on certificate of factory production control issued by notified factory production control certification body and type testing.

PRODUCT INFORMATION

Composition	Solvent free, 2-component Epoxy resin	
Packaging	Component A	11.20 kg
	Component B	9.50 kg
Colour	Component A	yellow - transparent
	Component B	brown
Shelf life	12 months shelf life from date of production	
Storage conditions	Store properly in undamaged, unopened, original sealed packaging, at temperatures from +8 °C up to +25 °C. Protect from direct sunlight and humidity.	

Density	Component A:	~1.10 kg/l	(EN ISO 2811)
	Component B:	~0.94 kg/l	
at 20 °C			
Viscosity	Temperature	Viscosity	(ISO 3219)
	+23 °C	~360 mPa s	
	+30 °C	~215 mPa s	

TECHNICAL INFORMATION

Shore D Hardness	~70	(EN 868)
Compressive Strength	~48 N/mm ²	(ISO 604)
Tensile Strength in Flexure	~55 N/mm ²	(ISO 178)
Tensile Strength	~18 N/mm ²	(ISO 527-1)

APPLICATION INFORMATION

Mixing Ratio	2 : 1 parts by volume (refer to Application Instructions/Mixing)		
Ambient Air Temperature	+12 °C min. / +35 °C max.		
Substrate Temperature	+12 °C min. / +35 °C max.		
Pot Life	Temperature	Pot Life	(acc. to ISO 9514)
	+12 °C	~120 min	
	+23 °C	~90 min	
	+30 °C	~55 min	
Curing Time	Temperature	Fully Cured	(EN ISO 9514)
	+12 °C	~3 days	
	+30 °C	~1 day	

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

Surfaces and cracks need to be clean, free of loose and friable particles, dust (e.g. blown out with clean compressed air) and free of any other bond-breaking materials or obstructions.

MIXING

Sika® Injection-458 is supplied in containers pre-batched according to the required mixing ratio of 2:1 by volume.

Sika® Injection-458 is always applied with 1-component injection pumps

- Empty components A and B completely into a clean mixing vessel and mix until homogeneous. If required, smaller quantities can be measured out and mixed in the correct proportions of 2:1 by volume.
- Mix the components together thoroughly but without excessive aeration, using a low-speed mechanical stirrer (max 300 rpm) for at least 3 minutes until a fully homogeneous mixture is obtained. Make sure that the material on the container walls and bottom is also mixed in thoroughly. Use a spatula or pour the material into another clean container and mix again.
- Once mixed fill the material into the 1-C pump's feed

container, stir briefly and use completely within pot life.

APPLICATION METHOD / TOOLS

Injection pumps for single component materials, such as the Sika® Injection Pump

CLEANING OF EQUIPMENT

Clean all tools and application equipment using the Sika® Injection Cleaning System according to the Product Data Sheet. Hardened/cured material can only be removed from external surfaces mechanically.

BASIS OF PRODUCT DATA

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

ECOLOGY, HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.

LEGAL NOTES

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

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